Patent document 1: Japanese (JP) design registration No.655304

- Patent document 2: JP design registration No.845632
- Patent document 3: JP examined patent application publication No.S62-51658
- Patent document 4: JP examined patent application publication No.H03-1061
- Patent document 5: JP examined patent application publication No.H04-55830

Conventional pulverizers based on hand mill principles include a pair of whetstones that are laid one upon another and adjustable in the interval therebetween, wherein a strong centrifugal force, an impact grinding force and shear are produced between said whetstones, thus a combined action of them performs attrition and pulverization. The attrition or pulverizing apparatuss provided with rotatable and/or stationary whetstones are disclosed by the above-mentioned official gazette.

A rotary or stationary whetstone used here is generally called grinders, commonly having particle sizes 16#, 24# to 120#, and 240#. Though having different particle sizes, these grinders are uneven on the surface, and when they handle a hard substance to be processed, there is possibility that raised portion will be scraped or worn out to cause inclusion of impurity.

 Patent document 6: JP examined patent application publication No.S62-51658 (already mentioned as Doc. 3)

It has been reported that the grinding apparatus as disclosed in the above patent document 6 is capable of grinding a material into fine particles of the order of 1 to 5 microns, but it is unable to obtain fine particles of under 1 micron with said apparatus.

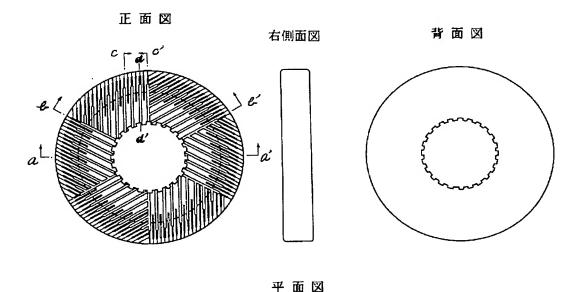
## 日本国特許庁

昭和60年(1985)7月8日発行

意 匠 公 報 (S)

K1-413

655304 意願 昭58-45594 出願 昭58(1983)10月21日 登録 昭60(1985)4月12日 川口市本町1丁目12番24号 田 恒 男 創 作 者 男 川口市本町1丁目12番24号 恒 意 匠 権 者 田 清 復代理人 弁理士 箕浦 審査 官 菅 原 英 意匠に係る物品 破砕砥石 本物品は、砥石盤面の角溝の絶えず交差するエツジのせん断作用で獣骨等の硬 説 明 い物質を500~1000ミクロン程度に粗破砕するものである。左側面図は 右側面図と、底面図は平面図と同一にあらわれる。

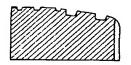


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a-a'断面図

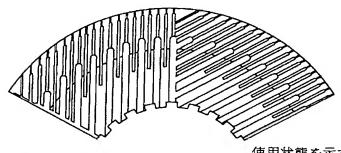


a-a'切断部拡大端面図

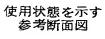


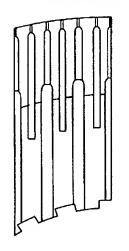


b - b'拡大正面図

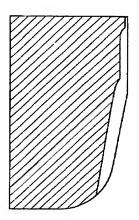


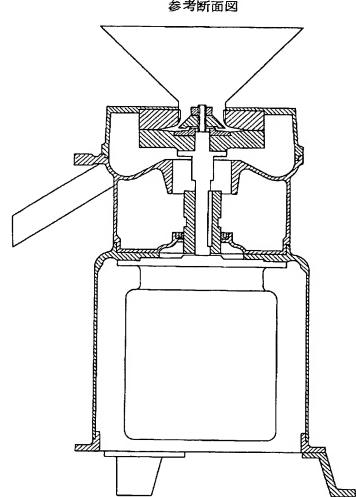
c - c'拡大正面図





d-d'切断部拡大断面図





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